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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/646,318 | MAHANY ET AL. | |
| | Examiner | Art Unit | |
| | THIEN T. MAI | 2887 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 01/05/2010.
2. ☒ The allowed claim(s) is/are 56-72.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date <u>1/13/2010</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Cruz on 01/13/2010.

In the claims, please amend the following:

56. (Currently amended) A handheld wireless communications device having at least one antenna, comprising:

a terminal that has a microphone and a speaker that provide voice input/output;

a wireless transceiver arranged to transmit and receive radio frequency signals

including voice signals, the transceiver being operatively coupled with the at least one antenna, the transceiver being operatively coupled to a rechargeable battery, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulation-generator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter which, in turn, is coupled to the transmitter level adjust circuitry which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second low pass filter which, in turn, is coupled to the data recovery circuitry, wherein the modulation-generator-and-limiter circuit is coupled to

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an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor;

a CCD sensor that senses an optical image; and

a connector arranged to couple the wireless transceiver with the terminal and to transmit signals,

wherein the wireless transceiver is housed in a module that can be removed **from the handheld wireless communications device** and replaced with a different type of module without requiring tuning adjustments.

60. (Currently amended) In a communication system including a portable terminal, the terminal comprising:

a microphone and a speaker that provide voice input/output, the microphone being used with a voice recognition control system;

a touch-sensitive graphical display that is capable of being operatively coupled to a rechargeable battery; a CCD sensor that senses a wireless image signal;

a wireless communications module comprising a wireless transceiver arranged to transmit and receive radio frequency signals **including voice signals**, the module being of such a size and weight as to be handheld, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulation-generator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter which, in turn, is coupled to the transmitter level adjust circuitry which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second low pass filter which, in turn, is coupled to the data recovery circuitry, wherein the modulation-

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generator-and-limiter circuit is coupled to an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor;

at least one antenna coupled with the transceiver and embedded within the communications module; and

a connector arranged to engage the communications module from the terminal and to transmit signals, wherein the wireless communications module can be removed from the portable terminal device and replaced with a different type of module without requiring tuning adjustments.

65. (Currently amended) Apparatus for use with a portable terminal comprising: a microphone and a speaker that provide voice input/output, the microphone being used with a voice recognition control system; a user interface that includes a touch-sensitive graphical display, the touch-sensitive graphical display being operatively coupled to a rechargeable battery; a wireless communications module comprising a wireless transceiver arranged to transmit and receive radio frequency signals including voice signals, the module having such a size and weight as to be handheld, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulation-generator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter which, in turn, is coupled to the transmitter level adjust circuitry which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second low pass filter which, in turn, is coupled to the data recovery circuitry, wherein the modulation-generator-and-limiter circuit is coupled to an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor;

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at least one antenna coupled with the communications module and embedded within the communications module; and

a connector arranged to engage the communications module with the terminal and to transmit signals,

wherein the wireless communications module is configured to be removable **from the portable terminal device** and replaceable with a different type of module without requiring tuning adjustments.

69. (Currently amended) Apparatus for use with a portable terminal including a connector and having a handheld size and weight, the apparatus comprising a microphone and a speaker that provide voice input/output, the microphone being used with a voice recognition control system, a graphical user interface that provides a touch-sensitive display, the graphical user interface being operatively coupled to a rechargeable battery, a CCD sensor that senses an optical image, a wireless communications module having a generally flat rectangular shape and having such a size and weight as to be handheld, the wireless communications module being coupled to the terminal through the connector and comprising a wireless transceiver arranged to transmit and receive radio frequency signals **including voice signals**, the terminal being engaged by the wireless communications module through the connector, wherein the wireless transceiver comprises at least one transmitter circuitry and at least one receiver circuitry, wherein the transmitter circuitry comprises a transmitter, a transmitter level adjust circuitry, a low pass filter and a modulation-generator-and-limiter circuitry, wherein the modulation-generator-and-limiter circuitry is coupled to the low pass filter which, in turn, is coupled to the transmitter level adjust circuitry which, in turn, is coupled to the transmitter, wherein the receiver circuitry comprises a receiver, a second low pass filter and data recovery circuitry, wherein the receiver is coupled to the second low pass filter which, in turn, is coupled

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to the data recovery circuitry, wherein the modulation-generator-and-limiter circuit is coupled to an output of a processor and wherein the data recovery circuitry is coupled to an input of the processor, wherein the wireless communications module is configured to be removable **from the portable terminal device** and replaceable with a different type of module without requiring tuning adjustments.

Allowable Subject Matter

1. Claim(s) 56-72 is/are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter: the prior art including at least Sandstedt, Allais, and Kang singly or in combination does not teach a portable communications device that comprises all elements as detailed in the independent claims. Furthermore, Applicant's argument on 01/05/2010 with respect to Sandstedt, Allais, and Kang are considered persuasive. Particularly, Sandstedt does not teach does not teach a removable communications module that transmits radio signals including voice signals. Rather, the device in Sandstedt is a device that transmits signals using audio wave energy and without using a removable wireless module. Thus a prima facie case of obviousness can not be made in combining at least Allais and Kang with Sandstedt to arrive at the claimed invention as detailed in the independent claims.
3. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to THIEN T. MAI whose telephone number is (571)272-8283. The examiner can normally be reached on Monday through Friday, 8:00 - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve S. Paik can be reached on 571-272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thien T Mai/
Examiner, Art Unit 2887

/Thien M. Le/
Primary Examiner, Art Unit 2887